WHAT IS CLAIMED:

1. Apparatus for stacking items, comprising:

(a) a first conveyor receiving the items and controlling item flow into the apparatus;

(b) a second conveyor receiving the items from the first conveyor;

(c) a stacker conveyor receiving the items from the second conveyor;

(d) a plurality of moving stacker shelves receiving the items from the stacker conveyor;

(e) a shifting mechanism for moving the stacker conveyor adjacent one of the plurality of moving stacker shelves; and

(f) a stack unloader.

2. The apparatus of claim 1, wherein the first conveyor further comprises two belts gripping the items therebetween.

3. The apparatus of claim 1, wherein the second conveyor further comprises a pair of spaced apart belts supporting the items.

4. The apparatus of claim 3, wherein the spacing between the belts is adjustable.

5. The apparatus of claim 4, wherein the stacker conveyor further comprises a pair of spaced apart belts supporting the items.

6. The apparatus of claim 5, wherein the spacing between the belts is adjustable.

7. The apparatus of claim 1, wherein the stacker conveyor adjusts for multiple sizes and pack patterns of items.

8. The apparatus of claim 1, wherein the stacker conveyor further comprises an anti-scuffing mechanism.

9. The apparatus of claim 1, wherein the stacker shelves retract sequentially to stack the items.

10. The apparatus of claim 1, further comprising a jam clearance mechanism.

11. The apparatus of claim 3, wherein the apparatus further comprises a jam clearance mechanism that separates the pair of spaced apart belts of the second conveyor, allowing product to fall out of the apparatus.

12. The apparatus of claim 11, further comprising a clean-out conveyor upon which the cleared product falls.

13. The apparatus of claim 11, further comprising a motor separating the spaced apart belts.

14. The apparatus of claim 1, wherein the second conveyor runs faster than the first conveyor, thereby creating a gap between each item.

15. The apparatus of claim 3, wherein the spaced apart belts permit incorrectly oriented items to drop between the spaced apart belts.

16. The apparatus of claim 1, wherein the second conveyor further comprises hold-down rails engaging the items and the stacker conveyor further comprises hold-down rollers engaging the items.

17. The apparatus of claim 1, further comprising an overflow mechanism permitting items to flow out of the apparatus without being stacked when there is a back-up in downstream equipment.

18. The apparatus of claim 17, wherein the overflow apparatus further comprises a movable backstop on the stacker conveyor.

19. The apparatus of claim 11, wherein the stacker conveyor further comprises a pair of spaced apart belts supporting the items, wherein the jam clearance mechanism further comprises a mechanism to separate the spaced apart belts of the stacker conveyor, and wherein the jam clearance mechanism further comprises a mechanism to separate the stacker shelves.

20. A method for stacking incoming items, comprising the steps of:

(a) receiving the items on a first conveyor;

(b) transferring the items to a second conveyor;

(c) transferring the items to a stacker conveyor;

(d) positioning the stacker conveyor adjacent one of a plurality of moving stacker shelves;

(e) transferring an item to one of the plurality of moving stacker shelves;

(f) retracting each stacker shelf to stack items in a stacking area; and

(g) unloading the stacked items from the stacking area.

21. The method of claim 20, further comprising the step of repeating steps (d) and (e) when the stacking area is full of items.

22. The method of claim 20, wherein step (d) further comprises moving the stacker conveyor in a direction opposite that of the moving stacker shelves, then tracking the motion of a stacker shelf as the item is transferred from the stacker conveyor to the moving stacker shelf.

23. The method of claim 20, wherein step (f) is disabled when the stacking area is full of items.

24. The method of claim 20, wherein step (g) further comprises unloading the stacked items out of the stacking area with a stack unloader and returning the stack unloader above items being stacked.

25. The method of claim 20, further comprising a step of stopping the first conveyor when the stacking area and the plurality of moving stacker shelves are full of items.

26. The method of claim 20, wherein the second conveyor runs faster than the first conveyor, thereby creating a gap between the items.

27. Apparatus for stacking items, comprising:

(a) a receiving mechanism for receiving incoming items;

(b) a stacking area wherein the items are stacked one upon the other;

(c) a stacking mechanism for receiving items from the receiving mechanism and stacking the items in the stacking area;

(d) a buffering mechanism for receiving incoming items when the stacking area is full; and

(e) a stack unloading mechanism.

28. The apparatus of claim 27, wherein the stacking mechanism further comprises a plurality of moving stacker shelves.

29. The apparatus of claim 28, wherein the receiving mechanism further comprises a conveyor tracking the motion of the moving stacker shelves.

30. The apparatus of claim 29, wherein the buffering mechanism further comprises the plurality of moving stacker shelves and the conveyor tracking the motion of the moving stacker shelves.

31. The apparatus of claim 29, wherein the conveyor moves in a direction opposite to the direction of motion of the moving stacker shelves, then tracks the motion of the moving stacker shelves.

32. The apparatus of claim 28, wherein the moving stacker shelves retract sequentially to stack items.

33. A method for stacking incoming items, comprising the steps of:

(a) receiving an item in an item receiving mechanism;

(b) moving the item receiving mechanism to track the motion of a stacking mechanism;

(c) transferring the item from the receiving mechanism to the stacking mechanism;

(d) stacking the item in a stacking area; and

(e) unloading the stacking area when the stacking area is full of items.

34. The method of claim 33, further comprising the step of repeating steps (a) through (c) when the stacking area is full of items.

35. The method of claim 33, wherein step (d) is disabled when the stacking area is full of items.

36. The method of claim 33, wherein step (e) occurs concurrently with steps (a) through (c).

37. Apparatus for stacking incoming items, comprising:

(a) a set of recycling stacker shelves moving in a substantially vertical path;

(b) a conveyor having a receiving end for receiving incoming items and a depositing end for transferring the items one at a time to one of the set of recycling stacker shelves;

(c) wherein the set of recycling stacker shelves retract to stack the items in a stacking area; and

(d) wherein the conveyor's depositing end tracks the motion of the set of recycling stacker shelves.

38. The apparatus of claim 37, further comprising a stack unloader.

39. The apparatus of claim 37, further comprising a jam clearance mechanism.

40. The apparatus of claim 37, further comprising an overflow mechanism.